

FIG. 1
(PAVE APT)

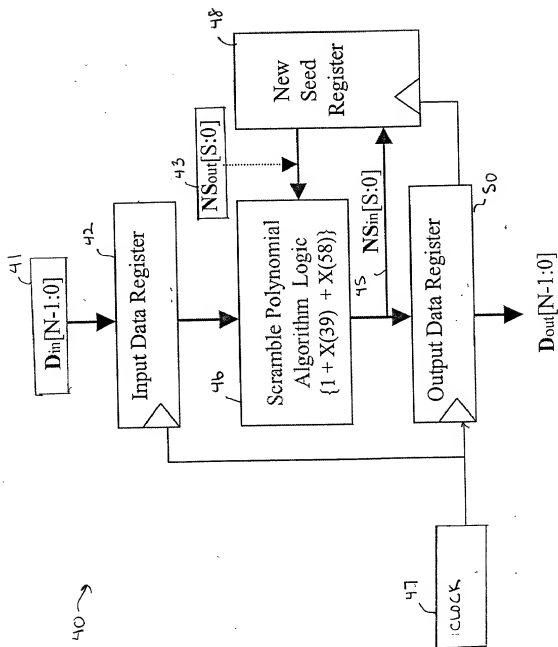


FIG. 2

New Seeds

Ignored
ignored
ignored
ignored
ignored
ignored

Dout(6) => NS'(57);
Dout(7) => NS'(56);
Dout(8) => NS'(55);
Dout(9) => NS'(54);
Dout(10) => NS'(53);
Dout(11) => NS'(52);
Dout(12) => NS'(51);
Dout(13) => NS'(50);
Dout(14) => NS'(49);
Dout(15) => NS'(48);
Dout(16) => NS'(47);
Dout(17) => NS'(46);
Dout(18) => NS'(45);
Dout(19) => NS'(44);
Dout(20) => NS'(43);
Dout(21) => NS'(42);
Dout(22) => NS'(41);
Dout(23) => NS'(40);
Dout(24) => NS'(39);
Dout(25) => NS'(38);
Dout(26) => NS'(37);
Dout(27) => NS'(36);
Dout(28) => NS'(35);
Dout(29) => NS'(34);
Dout(30) => NS'(33);
Dout(31) => NS'(32);
Dout(32) => NS'(31);
Dout(33) => NS'(30);
Dout(34) => NS'(29);
Dout(35) => NS'(28);
Dout(36) => NS'(27);
Dout(37) => NS'(26);
Dout(38) => NS'(25);

Dout(39) => NS'(24);
Dout(40) => NS'(23);
Dout(41) => NS'(22);
Dout(42) => NS'(21);
Dout(43) => NS'(20);
Dout(44) => NS'(19);
Dout(45) => NS'(18);
Dout(46) => NS'(17);
Dout(47) => NS'(16);
Dout(48) => NS'(15);
Dout(49) => NS'(14);
Dout(50) => NS'(13);
Dout(51) => NS'(12);

FIG. 3

Dout(52) => NS'(11);
Dout(53) => NS'(10);
Dout(54) => NS'(9);
Dout(55) => NS'(8);
Dout(56) => NS'(7);
Dout(57) => NS'(6);

Dout(58) => NS'(5);
Dout(59) => NS'(4);
Dout(60) => NS'(3);
Dout(61) => NS'(2);
Dout(62) => NS'(1);
Dout(63) => NS'(0);

FIG. 3

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FIG. 4

Dout(55) = NS(2) ^ NS(22) ^ NS(41) ^ Din(16) ^ Din(55);
 Dout(56) = NS(1) ^ NS(21) ^ NS(40) ^ Din(17) ^ Din(56);
 Dout(57) = NS(0) ^ NS(20) ^ NS(39) ^ Din(18) ^ Din(57);
 Dout[58:63] = NS[19:14] ^ NS[57:52] ^ Din[0:5] ^ Din[19:24] ^ Din[58:63];
 Dout(58) = NS(19) ^ NS(57) ^ Din(0) ^ Din(19) ^ Din(58);
 Dout(59) = NS(18) ^ NS(56) ^ Din(1) ^ Din(20) ^ Din(59);
 Dout(60) = NS(17) ^ NS(55) ^ Din(2) ^ Din(21) ^ Din(60);
 Dout(61) = NS(16) ^ NS(54) ^ Din(3) ^ Din(22) ^ Din(61);
 Dout(62) = NS(15) ^ NS(53) ^ Din(4) ^ Din(23) ^ Din(62);
 Dout(63) = NS(14) ^ NS(52) ^ Din(5) ^ Din(24) ^ Din(63);

FIG.4

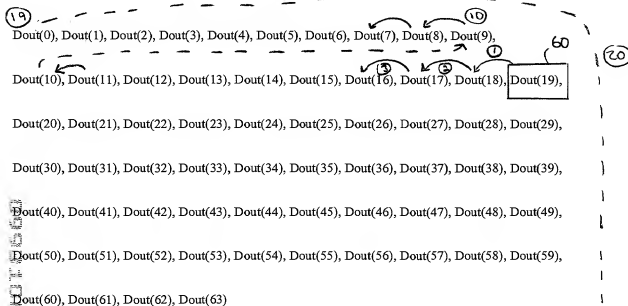
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SCRAMBLER
POLYNOMIAL

$$1 + x(39) + x(58)$$

$$\text{Dout}(19) = \text{NS}(19) \wedge \text{NS}(38) \wedge \text{Din}(19)$$

Scrambled Output current clock period (time = t)



$$(time = t-1)$$

Previous scrambled output for previous clock period

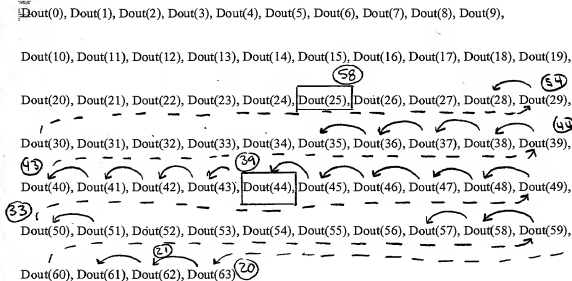


FIG 5

Scrambler Polynomial $1+X(39)+X(58)$

$\text{Dout}(50)=\text{NS}(7)^{\wedge}\text{NS}(27)^{\wedge}\text{NS}(46)^{\wedge}\text{Din}(11)^{\wedge}\text{Din}(50)$.

Scrambled Output for current clock period (time=t)

$\text{Dout}(0), \text{Dout}(1), \text{Dout}(2), \text{Dout}(3), \text{Dout}(4), \text{Dout}(5), \text{Dout}(6), \text{Dout}(7), \text{Dout}(8), \text{Dout}(9),$
 $\text{Dout}(10), \text{Dout}(11), \text{Dout}(12), \text{Dout}(13), \text{Dout}(14), \text{Dout}(15), \text{Dout}(16), \text{Dout}(17), \text{Dout}(18), \text{Dout}(19),$
 $\text{Dout}(20), \text{Dout}(21), \text{Dout}(22), \text{Dout}(23), \text{Dout}(24), \text{Dout}(25), \text{Dout}(26), \text{Dout}(27), \text{Dout}(28), \text{Dout}(29),$
 $\text{Dout}(30), \text{Dout}(31), \text{Dout}(32), \text{Dout}(33), \text{Dout}(34), \text{Dout}(35), \text{Dout}(36), \text{Dout}(37), \text{Dout}(38), \text{Dout}(39),$
 $\text{Dout}(40), \text{Dout}(41), \text{Dout}(42), \text{Dout}(43), \text{Dout}(44), \text{Dout}(45), \text{Dout}(46), \text{Dout}(47), \text{Dout}(48), \text{Dout}(49),$
 $\text{Dout}(50), \text{Dout}(51), \text{Dout}(52), \text{Dout}(53), \text{Dout}(54), \text{Dout}(55), \text{Dout}(56), \text{Dout}(57), \text{Dout}(58), \text{Dout}(59),$
 $\text{Dout}(60), \text{Dout}(61), \text{Dout}(62), \text{Dout}(63)$

Scrambled Output for previous clock period (time=t-1)

$\text{Dout}(0), \text{Dout}(1), \text{Dout}(2), \text{Dout}(3), \text{Dout}(4), \text{Dout}(5), \text{Dout}(6), \text{Dout}(7), \text{Dout}(8), \text{Dout}(9),$
 $\text{Dout}(10), \text{Dout}(11), \text{Dout}(12), \text{Dout}(13), \text{Dout}(14), \text{Dout}(15), \text{Dout}(16), \text{Dout}(17), \text{Dout}(18), \text{Dout}(19),$
 $\text{Dout}(20), \text{Dout}(21), \text{Dout}(22), \text{Dout}(23), \text{Dout}(24), \text{Dout}(25), \text{Dout}(26), \text{Dout}(27), \text{Dout}(28), \text{Dout}(29),$
 $\text{Dout}(30), \text{Dout}(31), \text{Dout}(32), \text{Dout}(33), \text{Dout}(34), \text{Dout}(35), \text{Dout}(36), \text{Dout}(37), \text{Dout}(38), \text{Dout}(39),$
 $\text{Dout}(40), \text{Dout}(41), \text{Dout}(42), \text{Dout}(43), \text{Dout}(44), \text{Dout}(45), \text{Dout}(46), \text{Dout}(47), \text{Dout}(48), \text{Dout}(49),$
 $\text{Dout}(50), \text{Dout}(51), \text{Dout}(52), \text{Dout}(53), \text{Dout}(54), \text{Dout}(55), \text{Dout}(56), \text{Dout}(57), \text{Dout}(58), \text{Dout}(59),$
 $\text{Dout}(60), \text{Dout}(61), \text{Dout}(62), \text{Dout}(63)$

FIG. 6

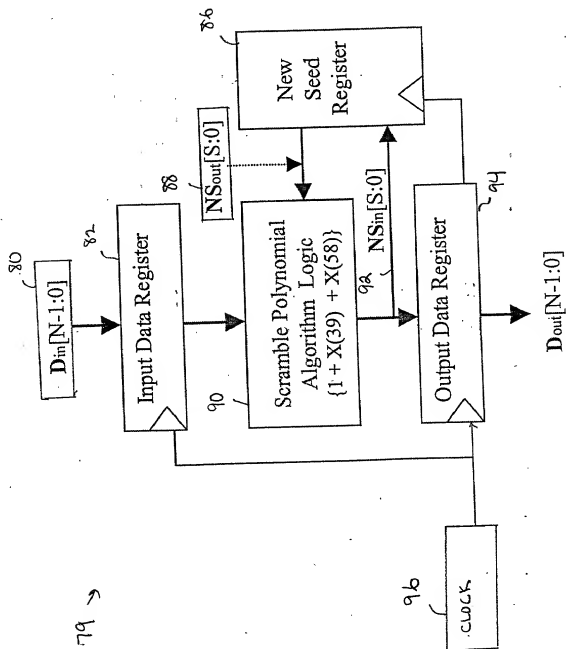


FIG. 7

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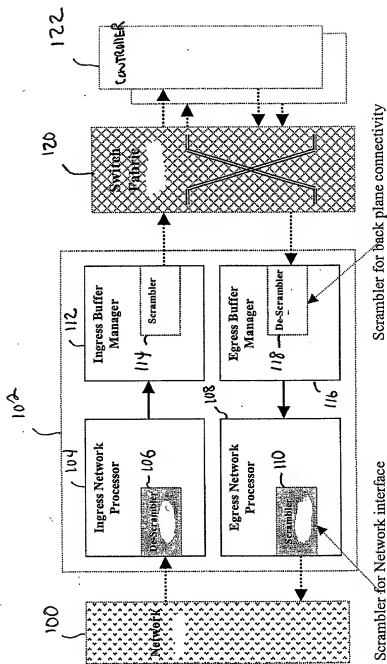


FIG. 8